CLAIMS

1. A magnetic head for a hard disk drive, comprising:

a write head portion, including:

a first magnetic pole;

a second magnetic pole having a relatively large yoke portion and a narrow pole tip;

a pole tip heating element being disposed proximate said pole tip for providing heat energy thereto.

2. A magnetic head as described in claim 1 wherein said write head portion further includes an induction coil being disposed in part between said first magnetic pole and said second magnetic pole and wherein said heating element is electrically connected with said induction coil.

3. A magnetic head as described in claim 2 wherein said heating element is electrically connected in series with said induction coil.

4. A magnetic head as described in claim 3 wherein said heating element includes a first electrical lead, a relatively narrow heating portion and a second electrical lead, and wherein said first electrical lead is electrically connected with an electrical interconnect contact pad of said induction coil.

5. A magnetic head as described in claim 4 wherein said heater portion of said heating element is comprised of a thin film material, and said electrical leads are comprised of one or more layers of electrically conductive material.

6. A magnetic head as described in claim 1 wherein a write gap layer is disposed between said first magnetic pole and said second magnetic pole tip, and wherein said heating element is disposed on a side of said pole tip that is away from said write gap layer, such that said pole tip is disposed between said write gap layer and said heating element.

7. A magnetic head as described in claim 6 wherein said write head portion further includes an induction coil being disposed in part between said first magnetic pole and said second magnetic pole and wherein said heating element is electrically connected with said induction coil.

8. A magnetic head as described in claim 7 wherein said heating element is electrically connected in series with said induction coil.

9. A magnetic head as described in claim 1 wherein said heating element has an electrical resistance of approximately .2 to 1.0 ohms.

10. A magnetic head as described in claim 1 wherein the heating energy of the heating element is approximately .3 to 1.6 mW.

11. A magnetic head as described in claim 1 wherein said heating element includes at least two legs, wherein a first said leg provides heat energy to said pole tip and a second leg provides an alternative electrical path for electrical current passing through said heating element.

12. A magnetic head as described in claim 1, wherein a write gap layer is disposed between said first magnetic pole and said second magnetic pole yoke, and wherein said heating element is disposed between said write gap layer and said yoke.

13. A magnetic head as described in claim 2 wherein said heating element is comprised of a material selected from the group consisting of Cu, W, NiFe, NiCr and IrRh.

14. A hard disk drive including a magnetic head, comprising:

at least one magnetic media disk;

at least one actuating arm for holding the magnetic head;

wherein the magnetic head includes:

a write head portion, including:

a first magnetic pole;

a second magnetic pole having a relatively large yoke portion and a narrow pole tip;

a pole tip heating element being disposed proximate said pole tip for providing heat energy thereto.

15. A hard disk drive including a magnetic head as described in claim 14 wherein said write head portion further includes an induction coil being disposed in part between said first magnetic pole and said second magnetic pole and wherein said heating element is electrically connected with said induction coil.

16. A hard disk drive including a magnetic head as described in claim 15 wherein said heating element includes a first electrical lead, a relatively narrow heating portion and a second electrical lead, and wherein said first electrical lead is electrically connected with an electrical interconnect contact pad of said induction coil.

17. A hard disk drive including a magnetic head as described in claim 14 wherein a write gap layer is disposed between said first magnetic pole and said second magnetic pole tip, and wherein said heating element is disposed on a side of said pole tip that is away from said write gap layer, such that said pole tip is disposed between said write gap layer and said heating element.

18. A hard disk drive including a magnetic head as described in claim 17 wherein said write head portion further includes an induction coil being disposed in part between said

first magnetic pole and said second magnetic pole and wherein said heating element is electrically connected with said induction coil.

19. A hard disk drive including a magnetic head as described in claim 14 wherein said heating element has an electrical resistance of approximately .2 to 1.0 ohms.

20. A hard disk drive including a magnetic head as described in claim 14 wherein the heating energy of the heating element is approximately .3 to 1.6 mW.